anomaly (12/280 children with sensorineural hearing loss were found to have an anomaly and all had this pattern).

Serologic testing for lues, biochemistry studies for thyroid or renal dysfunction and serial viral titer determinations in mother and child may be required.

A polytomographic defect must be excluded on x-ray studies. It has been recognized that minor shortening of the cochlea may be a feature of the Mondini anomaly. The presence of such an anomaly does not of itself imply hearing deterioration and the other conditions should be satisfied before therapy is recommended.

A glycerol test should be done for both prognostic and diagnostic reasons. If findings are positive, a trial of salt restriction and oral administration of diuretics for three months is worth while. If findings are negative, this medical regimen (sometimes called conservative therapy) can still be used, though its continuation during a relentless hearing deterioration to the point that the ear is unaidable cannot be defended as "conservation."

At this point a surgical approach may be considered with the parents. The empiric nature of the procedure needs to be stressed together with the risks (5 percent profound hearing loss, 20 percent mild hearing loss). Stabilization of hearing, not restoration, is the aim, and this has been reported for the Mondini deformity only. This approach may be applicable to nonradiographically defective ears. Until further scientific evidence appears, however, we must exercise caution in our enthusiasm to help these unfortunate children.

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## Cineradiography in the Evaluation of Obstructive Sleep Apnea

THE SYNDROME of obstructive sleep apnea is becoming more widely recognized by pediatricians, internists and otolaryngologists. In a recent issue of this journal, Rowe in his epitome "Obstructive Sleep Apnea" (1980 Oct; 133:324-325) gave a brief synopsis of this syndrome.

The use of cineradiography during normal

sleep, that is, not induced by a sedative, is now an essential tool in the evaluation of obstructive sleep apnea syndrome. A patient is allowed to fall into a natural sleep in the radiology suite. During periods of both obstructed and nonobstructed respirations, the nasopharyngeal, oropharyngeal and hypopharyngeal structures can be functionally evaluated. This method allows a clinician to noninvasively determine whether there is obstruction due to poor support of the tongue musculature, a mass lesion or failure to maintain a supraglottic airway due to collapse of the lateral pharyngeal walls or the supraglottic laryngeal structures.

Use of this technique can assist head and neck surgeons and pediatric and medical colleagues to obtain a more accurate assessment of the anatomic cause of obstructive sleep apnea and, thus, allow more specific, definitive therapeutic intervention.

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## The Treatment of Rhinitis With **Topically Administered Steroids**

THE TREATMENT OF vasomotor and allergic rhinitis is often quite difficult. Antihistamine and decongestant preparations given orally frequently produce the unwanted side effects of thickened secretions and central nervous system sedation or stimulation. Topically administered decongestants can produce rebound nasal obstruction, and dexamethasone aerosol has been shown to suppress adrenal activity. New flexibility is now available in the treatment of rhinitis since the Food and Drug Administration has recently approved the use of two new intranasal steroid sprays.

Beclomethasone dipropionate and flunisolide are both synthetic steroids that in multiple clinical studies have been more effective than a placebo spray in relieving the symptoms of vasomotor and allergic rhinitis. These effects are localized, and several studies cite examples of considerable relief of nasal symptoms with no effect on associated complaints of itching, burning eyes and excessive tearing. No adrenal suppression has been shown